

META C4



LASER MARKING SYSTEM



Class 4 laser

Lasertechnik®

Technology this good has never been so affordable

WHO ARE LOTUS LASER SYSTEMS ?

Lotus Laser Systems offer innovative, highly capable laser marking and cutting solutions at a purchase price and cost of ownership that is commonly lower than similar products from alternative providers.

The people behind the brand have decades of experience with laser technology.

Designed, configured and tested in the UK Lotus Laser Systems are built around the fundamentals of meeting or exceeding customer expectations for:



Our somewhat unique and super-efficient company structure combined with lean working practices provide us with the ability to align our products to the ever changing needs of our customers and the many markets that we serve much faster than most of our competitors, in particular the larger companies.

Lotus Laser Systems range from turn-key workstations to industrial line integrated units and contain component modules from industry leading technology specialists around the globe including Germany, USA, UK, Japan and China.

All machines come with the highest quality laser source from 10.6µm to 1064nm and enjoy extensive features with long warranty periods that are typically far beyond our industry standards

Using the **FAR** priorities to match those of our product design we invest significant resources to select and train a network of global partners that can supply you with local sales and support services

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WHAT IS META C4 ?

Meta is a very energy efficient, feature enriched, turn-key laser marking and engraving workstation that delivers the laser beam via a digital scan head containing high speed, high resolution XY galvanometers (galvos).

A range of interchangeable, multi layered F-theta lenses provide for a wide variety of focal point and work area sizes.

For the laser source we offer a choice of two wavelengths in a range of powers;

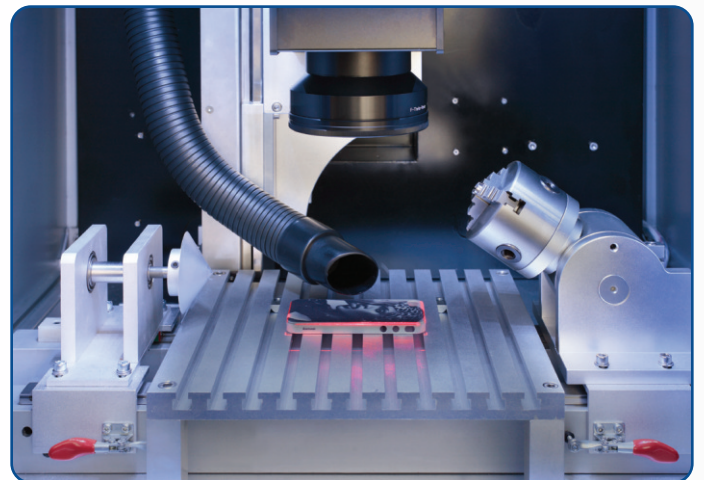
- 10.6µm - CO₂ (RF) from Synrad, USA
- 1064nm – 1mJ pulsed Fiber from IPG Photonics, Germany

The C4 (Class 4) variant is an open system that allows for maximum speed of operation and minimal restrictions with part loading.

Please note that regulations apply for use of Class 4 laser devices, therefore, specific safety measures and working practices must be in place whenever using this configuration of Meta.

Still a workstation but without an enclosure, the C4 variant can also be fitted with performance enhancing devices, such as the conveyor feed, that cannot be fitted to the Class 1 version.

For work environments that are not suitable for C4 we offer the C1 (Class 1) version, which has a separate brochure.

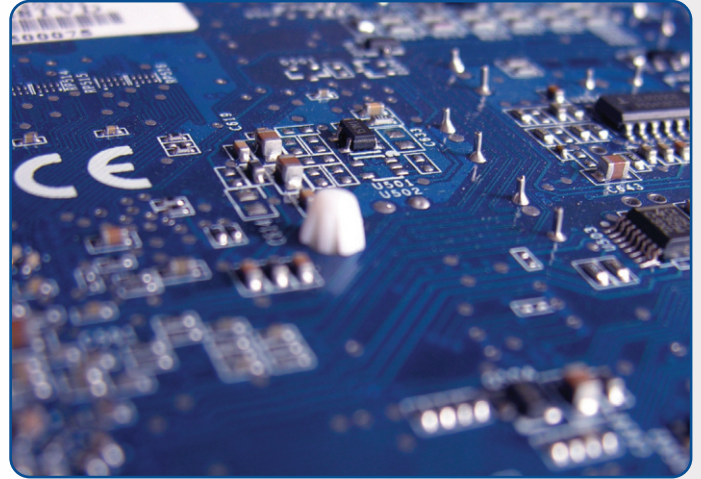


ELECTRONICS

The control electronics within every Lotus Meta are custom manufactured to work in perfect harmony with our control software LLmark

As standard with every Meta supplied, the system electronics are ready to connect to an extensive range of peripheral devices such as a rotary axis, automated handling, dual scan head and CCD (camera recognition) to name but a few of the many upgrade options.

Therefore, should the demands of your business increase then the capabilities of Meta can grow accordingly and, unlike many competing machines to Meta, because we design such add-ons to integrate fast and simply they are relatively low in cost too.

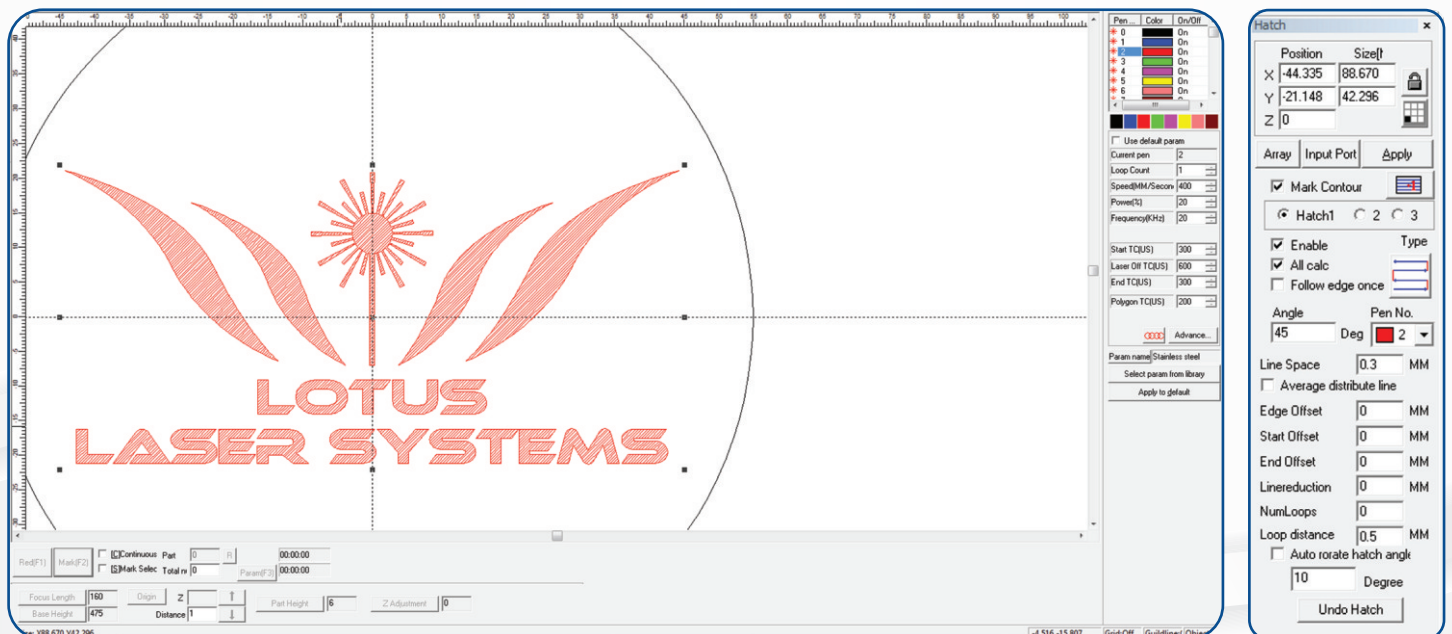


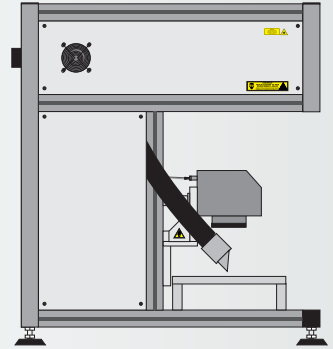
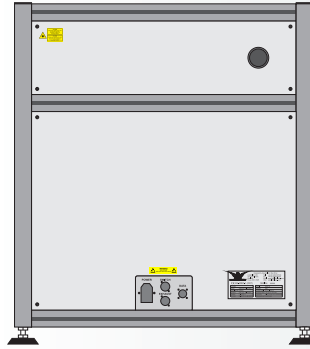
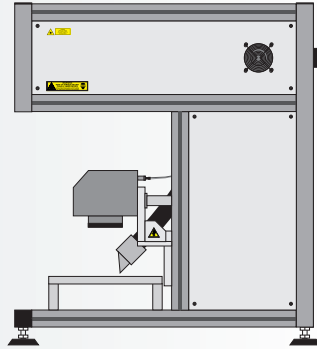
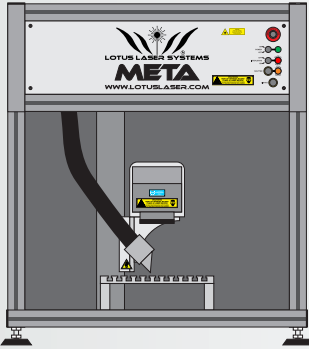
LLMARK SOFTWARE

In the decades that we have been working with lasers we know of no other software that can deliver the ease of use and functionality of LLmark.

LLmark is the tool with which the user can enhance and optimise the output quality and performance time of the marking process.

Graphical and intuitive to use many of the tools within LLmark are similar to those that you may have already experienced in other Windows o/s software packages. Most newcomers to the software are working comfortably with it within less than 1 hour of training, however, it still has the power to deliver solutions for more complex applications such as automated variable data input, external device actuation and graphical image manipulation.





Weight & Dimensions	
Width	800mm
Depth	890mm
Height	900mm
Weight	80kg
Foot (x4) adjustability	Height plus 0-40mm
Laser source options	
1064nm Fiber	
IPG (Germany) 10w	0.5mJ pulsed YLP-0.5-100-20-10-HC
IPG (Germany) 20w	1mJ pulsed YLP-1-100-20-20-HC
IPG (Germany) 30w	1mJ pulsed YLP-1-100-30-30-HC
IPG (Germany) 50w	1mJ pulsed YLP-1-120-50-50-HC
Positioning (red dot) pointer 655nm	
Power Requirements	
All systems single phase	Consumption depending on laser source
230 VAC	50/60 Hz
115 VAC	50/60Hz
Cooling	
All Fiber laser systems	Integrated air cooling
Computer	
Operating System	Windows XP/7
Connection	USB max 3m
Maximum part load using T-slot	
X	Infinity
X when rotary device is fitted	200mm
Y	Infinity
Z with 110mm lens	260mm
Z with 180mm lens	105mm
Weight	30kg
Maximum part load using Rotary Axis (option)	
X	200mm
Diameter with 110mm lens	180mm
Diameter with 180mm lens	120mm
Weight	2kg depending on fixture
Performance	
Scan head signal	Digital
Standard head max velocity	1000mm/sec
High Speed head max velocity	3000mm/sec
Super speed head max velocity	7000mm/sec

Safety & Security	
Laser class	4 (with shutter)
Emergency stop	Standard
Keyswitch power on/off	Standard
CE	Compliant
RoHS	Compliant
Miscellaneous	
T-slot size	300x300x20mm
Cabinet lights (LED)	Standard
Positionable exhaust hose	Standard
Z-axis programmable by software	Standard
LLmark control software	1 copy
Rotary axis with chuck	Optional
Conveyor feed	Optional
CCD camera recognition	Optional
Dual scan head/source	Optional – source must be 1 type
Warranty (T&C apply)	
Main system	2 years
Fiber laser source	2 years
Labour	Variable by territory
Warranty extensions	Optional
Service contracts	Optional
Environmental Requirements	
Ambient temp. (min/max)	15c to 30c
Fume extraction rate	Apps dependant, seek advice
Intolerant of: direct sunlight, vibration, high humidity, dampness, unstable power supply.	

